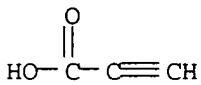
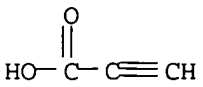
RN 471-25-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN 2-Propynoic acid (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **Propiolic acid (6CI, 8CI)**
OTHER NAMES:
CN 2-Propyne-1-carboxylic acid
CN Acetylenecarboxylic acid
CN Acetylenemonocarboxylic acid
CN Carboxyacetylene
CN NSC 16152
CN Propargylic acid
CN Propynoic acid
FS 3D CONCORD
MF C3 H2 O2
CI COM
LC STN Files: AGRICOLA, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CSCHEM, DDFU, DETHERM*, DRUGU, EMBASE, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

935 REFERENCES IN FILE CA (1907 TO DATE)
62 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
935 REFERENCES IN FILE CAPLUS (1907 TO DATE)

IT **471-25-0P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(production of, electrochem., extraction in relation to)
RN 471-25-0 CAPLUS
CN 2-Propynoic acid (9CI) (CA INDEX NAME)



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=> d his

     (FILE 'HOME' ENTERED AT 11:16:12 ON 21 APR 2005)

     FILE 'REGISTRY' ENTERED AT 11:16:21 ON 21 APR 2005
L1            1 S PROPIOLIC ACID/CN
L2            0 S ACETYLENE DICARBOXYLIC ACID/CN
L3          108 S (ACETYLENE(3A)DICARBOXYLIC)
L4          107 S L3 AND (DICARBOXYLIC(W)ACID)

     FILE 'CAPLUS' ENTERED AT 11:24:36 ON 21 APR 2005
L5           36 S 142-45-0P
L6            1 S L5 AND (H2O2 OR ?PEROXID?)
L7            2 S L5 AND (HYPOCHLOR? OR HYPOHAL? OR HYPOIOD? OR HYPOBROM?)
L8            2 S L5 AND NITROXY?
L9           60 S 471-25-0P
L10           1 S L9 AND (?PEROXID? OR H2O2)

=> s l9 and (hypohal? or hypochlo? or hypobrom? or hypoiodo?)
          1351 HYPOHAL?
         27642 HYPOCHLO?
          2899 HYPOBROM?
           322 HYPOIODO?
L11           3 L9 AND (HYPOHAL? OR HYPOCHLO? OR HYPOBROM? OR HYPOIODO?)

=> d bib abs hit 1-3

L11 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
AN  2004:159015 CAPLUS
DN  140:199022
TI  Procedure for the production of alkynecarboxylic acids by the oxidation of
    alkynyl alcohols with hypohalites in the presence of a nitroxyl
    compound
IN  Stohrer, Juergen; Fritz-Langhals, Elke; Bruenninghaus, Christian
PA  Consortium fuer Elektrochemische Industrie G.m.b.H., Germany
SO  Ger., 11 pp.
    CODEN: GWXXAW
DT  Patent
LA  German
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
PI   DE 10244633          B3    20040226    DE 2002-10244633       20020925
     EP 1403240           A1    20040331    EP 2003-20442          20030911
     EP 1403240           B1    20040721
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     AT 271533            E     20040815    AT 2003-20442          20030911
```

	ES 2222450	T3	20050201	ES 2003-3020442	20030911
	US 2004059154	A1	20040325	US 2003-667810	20030922
	JP 2004115519	A2	20040415	JP 2003-331417	20030924
PRAI	DE 2002-10244633	A	20020925		

OS CASREACT 140:199022

AB Alkynecarboxylic acids (e.g., propargylic acid) are prepared in high yield and selectivity by the oxidation of an alkynyl alc. (e.g., propargylic alc.) with a **hypohalite** (e.g., sodium **hypochlorite**) in the presence of a nitroxyl compound (e.g., 4-hydroxy-TEMPO) at a pH value >7 by continuous addition of the alkynyl alc. and the **hypohalogenite** to the reaction mixture

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcohols with **hypohalites** in the presence of a nitroxyl compound

AB Alkynecarboxylic acids (e.g., propargylic acid) are prepared in high yield and selectivity by the oxidation of an alkynyl alc. (e.g., propargylic alc.) with a **hypohalite** (e.g., sodium **hypochlorite**) in the presence of a nitroxyl compound (e.g., 4-hydroxy-TEMPO) at a pH value >7 by continuous addition of the alkynyl alc. and the **hypohalogenite** to the reaction mixture

ST alkynecarboxylic acid manuf alkynyl alc oxidn **hypohalite** nitroxyl compd; propynecarboxylic acid manuf propargylic alc oxidn **hypohalite** nitroxyl compd

IT Buffers
(in a procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

IT Oxidation catalysts
(liquid-phase, phase-transfer; in a procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

IT Oxidation
(liquid-phase; procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

IT **Hypochlorites**
Hypohalites
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidants; procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

IT Nitroxides
RL: CAT (Catalyst use); USES (Uses)
(procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

IT Alcohols, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(propargyl; procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

IT Carboxylic acids, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(unsatd., alkynecarboxylic acids; procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

IT 471-34-1, Calcium carbonate, reactions
RL: RGT (Reagent); RACT (Reactant or reagent)
(base; in a procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a

nitroxyl compound)
IT 2226-96-2, 4-Hydroxy-TEMPO
RL: CAT (Catalyst use); USES (Uses)
(in a procedure for the production of alkynecarboxylic acids by the oxidation
of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)
IT 7681-52-9, Sodium **hypochlorite**
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidant; procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)
IT 14691-89-5, 4-Acetamido-TEMPO
RL: CAT (Catalyst use); USES (Uses)
(procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)
IT 107-19-7, Propargyl alcohol 110-65-6, 2-Butyne-1,4-diol 764-01-2, 2-Butyn-1-ol
RL: RCT (Reactant); RACT (Reactant or reagent)
(procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)
IT 142-45-0P, Acetylenedicarboxylic acid **471-25-0P**, Propargylic acid 590-93-2P, 2-Butynoic acid
RL: SPN (Synthetic preparation); PREP (Preparation)
(procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

L11 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:652130 CAPLUS
DN 139:181969
TI Process for the preparation of alkynoic acids and alkynoic acid esters of alkynols via the oxidation of alkynols
IN Stohrer, Juergen; Fritz-Langhals, Elke; Brueninghaus, Christian; Stauch, Dagmar
PA Consortium Fuer Elektrochemische Industrie G.m.b.H., Germany
SO Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1336599	A1	20030820	EP 2003-2103	20030130
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	DE 10206619	A1	20031009	DE 2002-10206619	20020215
	DE 10206619	B4	20040325		
	US 2003158439	A1	20030821	US 2003-365887	20030213
PRAI	DE 2002-10206619	A	20020215		

OS CASREACT 139:181969
AB Alkynoic acids (e.g., propynoic acid) and alkynoic acid esters of alkynols (e.g., 2-propyn-1-yl propynoate) are prepared in high yield and selectivity via the oxidation of alkynols (e.g., propargyl alc.) in the presence of 1-10 mol-equivalent of a **hypohalogenite** (e.g., sodium **hypochlorite**) and in the presence of a nitroxy compds. (e.g., TEMPO) at a pH of <7.
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
AB Alkynoic acids (e.g., propynoic acid) and alkynoic acid esters of alkynols (e.g., 2-propyn-1-yl propynoate) are prepared in high yield and selectivity

via the oxidation of alkynols (e.g., propargyl alc.) in the presence of 1-10 mol-equivalent of a **hypohalogenite** (e.g., sodium **hypochlorite**) and in the presence of a nitroxy compds. (e.g., TEMPO) at a pH of <7.

IT Oxidizing agents
(**hypohalogenites**; process for the preparation of alkynoic acids and alkynoic acid esters of alkynols via the oxidation of alkynols using)

IT **Hypohalites**
RL: RGT (Reagent); RACT (Reactant or reagent)
(process for the preparation of alkynoic acids and alkynoic acid esters of alkynols via the oxidation of alkynols using)

IT 7681-52-9, Sodium **hypochlorite**
RL: RGT (Reagent); RACT (Reactant or reagent)
(oxidant; process for the preparation of alkynoic acids and alkynoic acid esters of alkynols via the oxidation of alkynols)

IT **471-25-0P**, Propynoic acid
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(process for the preparation of alkynoic acids and alkynoic acid esters of alkynols via the oxidation of alkynols)

L11 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1973:526292 CAPLUS
DN 79:126292
TI Synthesis and reactions of acetylenic heterocyclic acids
AU Azerbaev, I. N.; Kurmangazieva, Zh. M.; Nurgalieva, A. N.; Khairova, F. Kh.; Shunkarov, U. Sh.; Yagudeev, T. A.; Leonov, I. D.; Sarbaev, T. G.
CS USSR
SO Khim. Atsetilena Tekhnol. Karbida Kal'tsiya (1972) 131-6
From: Ref. Zh., Khim. 1973, Abstr. No. 8Zh321
DT Journal
LA Russian
GI For diagram(s), see printed CA Issue.
AB Reaction of aqueous KOBr on I or II (β- and γ-isomers) (R = C.tplbond.CH) in diglyme, dioxane, THF, ethylene glycol, or diethylene glycol at -10° gave 80% I or II (R = C.tplbond.CBr) (Ia, IIa), which were hydrogenated over Raney Ni or hydrated to the resp. I and II (R = CH2CH2Br.COCH2Br). Iotsich reaction (Mg, CO2) of Ia or IIa 8-10 hr at -20° gave I and II (R = C.tplbond.CCO2H) (Ib, IIb), which with MeOH-Wolfatite II give the Me esters, and which were hydrogenated over Raney Ni to give I and II (R = CH2CH2CO2H). Hydration of Ib and IIb gave, resp., III and IV. Oxidation of HOCMe2C.tplbond.CCH:CH2 with AcOOH gave HOCMe2C.tplbond.CCO2H, which by reverse Favorskii reaction in the presence of KOH gave HC.tplbond.CCO2H, condensation of which with Ia or IIa in the presence of CuCl gave I or II (R = C.tplbond.CC.tplbond.CCO2H).

IT 74-86-2DP, Ethyne, heterocyclic **471-25-0P** 39595-78-3P 42414-47-1P 50288-79-4P 50288-81-8P 50288-83-0P 50624-16-3P 50624-17-4P 50624-18-5P 50624-19-6P 50624-20-9P 50624-21-0P 50624-22-1P 50624-23-2P 50624-24-3P 50624-25-4P 50624-26-5P 50624-27-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT 15775-89-0 19973-20-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with potassium **hypobromite**)

AN 1961:130815 CAPLUS
DN 55:130815
OREF 55:24569f-g
TI Halogenated acetylenic alcohols
IN Russell, James P.; Vitcha, James F.
PA Air Reduction Co., Inc.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2989568		19610620	US	

L23 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:150421 CAPLUS
DN 138:172129
TI Making carboxylated cellulose fibers and paper products
IN Jewell, Richard A.; Komen, Joseph Lincoln; Su, Bing; Weerawarna, S. Ananda; Li, Yong
PA Weyerhaeuser Company, USA
SO U.S., 23 pp., Cont.-in-part of U.S. 6,379,494.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6524348	B1	20030225	US 2000-641276	20000817
	US 6379494	B1	20020430	US 1999-418909	19991015
PRAI	US 1999-272137	B2	19990319		
	US 1999-418909	A2	19991015		

OS MARPAT 138:172129
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
AB The title method of making carboxylated cellulose fibers whose fiber strength and d.p. is not significantly sacrificed comprises oxidation and **stabilized** stages. The title method involves the use of cyclic **nitroxide** free radical compds. as a primary oxidant and a **hypohalite** salt as a secondary oxidant in an aqueous environment. Preferably the oxidized cellulose is then **stabilized** against D.P. loss in alkaline environments and color reversion with a reducing agent such as Na borohydride. Alternatively it may be treated with an tertiary oxidant such as Na chlorite. The method results in a high percentage of carboxyl groups located at the fiber surface. The product is especially useful as a papermaking fiber where it contributes strength and has a higher attraction for cationic additives. The product is also useful as an additive to recycled fiber to increase strength. The method can be used to improve properties of either virgin or recycled fiber. It does not require high α-cellulose fiber but is suitable for regular market pulps.

L23 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:300943 CAPLUS
DN 134:312682
TI Method of making carboxylated cellulose fibers and products
IN Jewell, Richard A.; Komen, Joseph Lincoln; Su, Bing; Weerawarna, S. Ananda; Li, Yong
PA Weyerhaeuser Company, USA
SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001029309	A1	20010426	WO 2000-US27837	20001006
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,				

CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

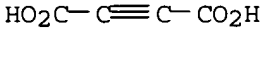
	US 6379494	B1	20020430	US 1999-418909	19991015
	CA 2384701	AA	20010426	CA 2000-2384701	20001006
	EP 1238142	A1	20020911	EP 2000-970682	20001006
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
	JP 2003512540	T2	20030402	JP 2001-532283	20001006
PRAI	US 1999-418909	A	19991015		
	US 1999-272137	A2	19990319		
	WO 2000-US27837	W	20001006		

OS MARPAT 134:312682

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB A method of making highly carboxylated cellulose fibers whose fiber strength and d.p. is not significantly sacrificed comprises (1) oxidizing the cellulose fiber (kraft pulp) with a cyclic **nitroxide** free radical compound as a primary oxidant and a **hypohalite** salt as a secondary oxidant under aqueous alkaline conditions; and (2) treating the oxidized cellulose against d.p. loss in aqueous suspension with a **stabilizing** agent selected from the group consisting of reducing agent and tertiary oxidizing agent. The product is especially useful as a papermaking fiber where it contributes strength and has a higher attraction for cationic additives, and it is also useful as an additive to recycled fiber to increase strength.

RN 142-45-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN 2-Butynedioic acid (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **Acetylenedicarboxylic acid (6CI, 8CI)**
OTHER NAMES:
CN 2-Butyne-1,4-dioic acid
CN Butynedioic acid
CN NSC 1903
CN NSC 631597
FS 3D CONCORD
MF C4 H2 O4
CI COM
LC STN Files: BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DETHERM*, EMBASE, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MSDS-OHS, SPECINFO, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

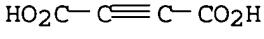
562 REFERENCES IN FILE CA (1907 TO DATE)
71 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
564 REFERENCES IN FILE CAPLUS (1907 TO DATE)
48 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

AN 1973:525868 CAPLUS
DN 79:125868
TI Acetylenedicarboxylic acid
IN Vereshchagin, L. I.; Gavrilov, L. D.
PA Irkutsk State University
SO U.S.S.R.
From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1973, 50(29), 88.
CODEN: URXXAF
DT Patent
LA Russian
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	SU 389075	T	19730705	SU 1971-1710938	19711101
PRAI	SU 1971-1710938	A	19711101		

AB HO2CC.tplbond.CCO2H was prepared by oxidation of HOCH2CH.tplbond.CHCH2OH with nickel **peroxide** in aqueous base.
ST acetylenedicarboxylic acid; butenediol nickel **peroxide** oxidn
IT Oxidation
(of butenediol by nickel **peroxide**, acetylenedicarboxylic acid from)
IT **142-45-0P**
RL: PREP (Preparation)
(by oxidation of butenediol)
IT 110-64-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of, with nickel **peroxide**)

RN 142-45-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN 2-Butynedioic acid (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **Acetylenedicarboxylic acid (6CI, 8CI)**
OTHER NAMES:
CN 2-Butyne-1,4-dioic acid
CN Butynedioic acid
CN NSC 1903
CN NSC 631597
FS 3D CONCORD
MF C4 H2 O4
CI COM
LC STN Files: BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DETHERM*, EMBASE, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MSDS-OHS, SPECINFO, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



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=> s 142-45-0p
L5          36 142-45-0P

=> s l5 and (h2o2 or ?peroxid?)
        143460 H2O2
        377216 ?PEROXID?
L6           1 L5 AND (H2O2 OR ?PEROXID?)

=> d bib hit

L6   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   1973:525868  CAPLUS
DN   79:125868
TI   Acetylenedicarboxylic acid
IN   Vereshchagin, L. I.; Gavrilov, L. D.
PA   Irkutsk State University
SO   U.S.S.R.
     From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1973, 50(29),
     88.
     CODEN: URXXAF
DT   Patent
LA   Russian
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     ---------------     ----   --------    --------------------    --------
PI   SU 389075            T     19730705    SU 1971-1710938         19711101
PRAI SU 1971-1710938      A     19711101
AB   HO2CC.tplbond.CCO2H was prepared by oxidation of HOCH2CH.tplbond.CHCH2OH with
     nickel peroxide in aqueous base.
ST   acetylenedicarboxylic acid; butenediol nickel peroxide oxidn
IT   Oxidation
        (of butenediol by nickel peroxide, acetylenedicarboxylic acid
        from)
IT   142-45-0P
     RL: PREP (Preparation)
        (by oxidation of butenediol)
IT   110-64-5
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (oxidation of, with nickel peroxide)


=> s l5 and (hypochlor? or hypohal? or hypoiod? or hypobrom?)
         27623 HYPOCHLOR?
          1351 HYPOHAL?
          1147 HYPOIOD?
          2899 HYPOBROM?
L7           2 L5 AND (HYPOCHLOR? OR HYPOHAL? OR HYPOIOD? OR HYPOBROM?)

=> d bib abs hit 1-2

L7   ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   2004:159015  CAPLUS
DN   140:199022
TI   Procedure for the production of alkynecarboxylic acids by the oxidation of
     alkynyl alcohols with hypohalites in the presence of a nitroxyl
     compound
IN   Stohrer, Juergen; Fritz-Langhals, Elke; Bruenninghaus, Christian
PA   Consortium fuer Elektrochemische Industrie G.m.b.H., Germany
SO   Ger., 11 pp.
     CODEN: GWXXAW
DT   Patent
```

LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10244633	B3	20040226	DE 2002-10244633	20020925
	EP 1403240	A1	20040331	EP 2003-20442	20030911
	EP 1403240	B1	20040721		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	AT 271533	E	20040815	AT 2003-20442	20030911
	ES 2222450	T3	20050201	ES 2003-3020442	20030911
	US 2004059154	A1	20040325	US 2003-667810	20030922
	JP 2004115519	A2	20040415	JP 2003-331417	20030924
PRAI	DE 2002-10244633	A	20020925		

OS CASREACT 140:199022

AB Alkynecarboxylic acids (e.g., propargylic acid) are prepared in high yield and selectivity by the oxidation of an alkynyl alc. (e.g., propargylic alc.) with a **hypohalite** (e.g., sodium **hypochlorite**) in the presence of a nitroxyl compound (e.g., 4-hydroxy-TEMPO) at a pH value >7 by continuous addition of the alkynyl alc. and the **hypohalogenite** to the reaction mixture

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcohols with **hypohalites** in the presence of a nitroxyl compound

AB Alkynecarboxylic acids (e.g., propargylic acid) are prepared in high yield and selectivity by the oxidation of an alkynyl alc. (e.g., propargylic alc.) with a **hypohalite** (e.g., sodium **hypochlorite**) in the presence of a nitroxyl compound (e.g., 4-hydroxy-TEMPO) at a pH value >7 by continuous addition of the alkynyl alc. and the **hypohalogenite** to the reaction mixture

ST alkynecarboxylic acid manuf alkynyl alc oxidn **hypohalite** nitroxyl compd; propynecarboxylic acid manuf propargylic alc oxidn **hypohalite** nitroxyl compd

IT Buffers
(in a procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

IT Oxidation catalysts
(liquid-phase, phase-transfer; in a procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

IT Oxidation
(liquid-phase; procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

IT **Hypochlorites**
Hypohalites
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidants; procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

IT Nitroxides
RL: CAT (Catalyst use); USES (Uses)
(procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

IT Alcohols, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(propargyl; procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a

nitroxyl compound)

IT Carboxylic acids, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(unsatd., alkynecarboxylic acids; procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

IT 471-34-1, Calcium carbonate, reactions
RL: RGT (Reagent); RACT (Reactant or reagent)
(base; in a procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

IT 2226-96-2, 4-Hydroxy-TEMPO
RL: CAT (Catalyst use); USES (Uses)
(in a procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

IT 7681-52-9, Sodium **hypochlorite**
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidant; procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

IT 14691-89-5, 4-Acetamido-TEMPO
RL: CAT (Catalyst use); USES (Uses)
(procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

IT 107-19-7, Propargyl alcohol 110-65-6, 2-Butyne-1,4-diol 764-01-2, 2-Butyn-1-ol
RL: RCT (Reactant); RACT (Reactant or reagent)
(procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

IT **142-45-0P**, Acetylenedicarboxylic acid 471-25-0P, Propargylic acid 590-93-2P, 2-Butynoic acid
RL: SPN (Synthetic preparation); PREP (Preparation)
(procedure for the production of alkynecarboxylic acids by the oxidation of alkynyl alcs. with **hypohalites** in the presence of a nitroxyl compound)

L7 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:652130 CAPLUS
DN 139:181969
TI Process for the preparation of alkynoic acids and alkynoic acid esters of alkynols via the oxidation of alkynols
IN Stohrer, Juergen; Fritz-Langhals, Elke; Brueninghaus, Christian; Stauch, Dagmar
PA Consortium Fuer Elektrochemische Industrie G.m.b.H., Germany
SO Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1336599	A1	20030820	EP 2003-2103	20030130
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	DE 10206619	A1	20031009	DE 2002-10206619	20020215
	DE 10206619	B4	20040325		
	US 2003158439	A1	20030821	US 2003-365887	20030213
PRAI	DE 2002-10206619	A	20020215		

OS CASREACT 139:181969

AB Alkynoic acids (e.g., propynoic acid) and alkynoic acid esters of alkynols (e.g., 2-propyn-1-yl propynoate) are prepared in high yield and selectivity via the oxidation of alkynols (e.g., propargyl alc.) in the presence of 1-10 mol-equivalent of a **hypohalogenite** (e.g., sodium **hypochlorite**) and in the presence of a nitroxy compds. (e.g., TEMPO) at a pH of <7.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Alkynoic acids (e.g., propynoic acid) and alkynoic acid esters of alkynols (e.g., 2-propyn-1-yl propynoate) are prepared in high yield and selectivity via the oxidation of alkynols (e.g., propargyl alc.) in the presence of 1-10 mol-equivalent of a **hypohalogenite** (e.g., sodium **hypochlorite**) and in the presence of a nitroxy compds. (e.g., TEMPO) at a pH of <7.

IT Oxidizing agents
(**hypohalogenites**; process for the preparation of alkynoic acids and alkynoic acid esters of alkynols via the oxidation of alkynols using)

IT **Hypohalites**
RL: RGT (Reagent); RACT (Reactant or reagent)
(process for the preparation of alkynoic acids and alkynoic acid esters of alkynols via the oxidation of alkynols using)

IT 7681-52-9, Sodium **hypochlorite**
RL: RGT (Reagent); RACT (Reactant or reagent)
(oxidant; process for the preparation of alkynoic acids and alkynoic acid esters of alkynols via the oxidation of alkynols)

IT **142-45-0P**, 2-Butynedioic acid 2345-51-9P, 3-Butynoic acid
4383-39-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(process for the preparation of alkynoic acids and alkynoic acid esters of alkynols via the oxidation of alkynols)